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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,915	02/05/2001	Robert R. Andrews	08261-017001	6193

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EXAMINER

TRAN, BINH Q

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/777,915

Applicant(s)

ANDREWS ET AL. 

Examiner

BINH Q. TRAN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) 11-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the election/restriction requirement filed January 21, 2003.

Response To Election/Restriction

Applicant's election without traverse of the invention of Group I in Paper No. 6 is acknowledged.

Claims 11-71 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 6. *A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP 821.01.*

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-10 are rejected under 35 U.S.C. 102 (b) as being anticipated by Brauer (Patent Number 5,951,543).

Regarding claims 1 and 6, Brauer discloses a cardiac laser surgery apparatus and method comprising: a CO₂ slab laser (e.g. 620), and a laser delivery system (e.g. See Figs. 5-6) for delivering laser pulses from said laser to a patient's heart (e.g. See Figs. 5-6; col. 8, lines 65-67; cols. 9-10, lines 1-67).

Regarding claims 2 and 7, Brauer further discloses that the laser delivery system includes a hand piece for delivering pulses to the outside of a patient's heart to provide openings in the patient's heart for myocardial revascularization (e.g. See Figs. 5-6; col. 8, lines 65-67; cols. 9-10, lines 1-67).

Regarding claims 3 and 8, Brauer further discloses that the pulses are shorter than 100 ms and provide energy of between 8 and 80 Joules per pulse (e.g. See Figs. 5-6; col. 10, lines 15-67; col. 11, lines 34-63).

Regarding claims 4 and 9, Brauer further discloses that the laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia (e.g. See Figs. 5-6; col. 10, lines 15-67; col. 11, lines 34-63).

Regarding claims 5 and 10, Brauer further discloses that the laser starts firing on the R wave and stops before the T wave (e.g. See Figs. 5-6; col. 10, lines 15-67; col. 11, lines 1-63).

Claims 1-10 are rejected under 35 U.S.C. 102 (b) as being anticipated by Murphy-Chutorian et al. (Murphy'834) (Patent Number 5,951,543).

Regarding claims 1 and 6, Murphy'834 discloses a cardiac laser surgery apparatus and method comprising: a CO2 slab laser, and a laser delivery system (See col. 7, lines 45-67; col. 8, lines 1-20) for delivering laser pulses from said laser to a patient's heart (See col. 8, lines 21-67; col. 9, lines 1-67; col. 11, lines 1-14).

Regarding claims 2 and 7, Murphy'834 further discloses that the laser delivery system includes a hand piece for delivering pulses to the outside of a patient's heart to provide openings in the patient's heart for myocardial revascularization (See col. 8, lines 21-67; col. 9, lines 1-67; col. 11, lines 1-14).

Regarding claims 3 and 8, Murphy'443 further discloses that the pulses are shorter than 100 ms and provide energy of between 8 and 80 Joules per pulse (e.g. See col. 17, lines 15-67).

Regarding claims 4 and 9, Murphy'834 further discloses that the laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia (See col. 8, lines 21-67; col. 9, lines 1-67; col. 11, lines 1-14).

Regarding claims 5 and 10, Murphy'834 further discloses that the laser starts firing on the R wave and stops before the T wave (See Figs. 2; col. 11, lines 11-67; col. 12, lines 1-14).

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Claims 1-2, 4-7, and 9-10 are rejected under 35 U.S.C. 102 (b) as being anticipated by Murphy-Chutorian et al. (Murphy'443) (Patent Number 5,993,443).

Regarding claims 1 and 6, Murphy'443 discloses a cardiac laser surgery apparatus and method comprising: a CO₂ slab laser (28), and a laser delivery system (See Figs. 1-14) for delivering laser pulses from said laser to a patient's heart (See Figs. 1-14; col. 6, lines 10-65).

Regarding claims 2 and 7, Murphy'443 further discloses that the laser delivery system includes a hand piece for delivering pulses to the outside of a patient's heart to provide openings in the patient's heart for myocardial revascularization (See Figs. 1-14; col. 9, lines 52-67).

Regarding claims 4 and 9, Murphy'443 further discloses that the laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia (See Figs. 3a-3g; col. 6, lines 10-67; cols. 7-8, lines 1-67).

Regarding claims 5 and 10, Murphy'443 further discloses that the laser starts firing on the R wave and stops before the T wave (See Figs. 1-14; col. 6, lines 10-67; cols. 7-8, lines 1-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy'443 in view of design choice.

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Regarding claims 3 and 8, Murphy'443 discloses all the claimed limitation as discussed above except that the pulses are shorter than 100 ms and provide energy of between 8 and 80 Joules per pulse.

Regarding the specific range of the laser pulses, it is the examiner's position that that the pulses are shorter than 100 ms and provide energy of between 8 and 80 Joules per pulse would have been an obvious matter of design choice well within the level of ordinary skill in the art, depending on condition of the patient's heart such as heart beat cycles, blood flow rate, blood pressure, and heart tissue. Moreover, there is nothing in the record which establishes that the claimed parameters present a novel or unexpected result (See *In re Kuhle*, 562 F. 2d 553, 188 USPQ 7 (CCPA 1975)).

Under some circumstances, however, changes such as these may impart patentability to a process if the particular ranges claimed produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dreyfus*, 22 CCPA (Patents) 830, 73 F.2d 931, 24 USPQ 52; *In re Waite et al.*, 35 CCPA (Patents) 1117, 168 F.2d 104, 77 USPQ 586. Such ranges are termed "critical" ranges, and the applicant has the burden of proving such criticality. *In re Swenson et al.*, 30 CCPA (Patents) 809, 132 F.2d 1020, 56 USPQ 372. *In re Swain et al.*, 33 CCPA (Patents) 1250, 156 F.2d 239, 70 USPQ 412; *Minnesota Mining and Mfg. Co. v. Coe*, 69 App. D.C. 217, 99 F.2d 986, 38 USPQ 213; *Allen et al. v. Coe*, 77 App. D.C. 324, 135 F.2d 11, 57 USPQ 136.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of four patents:

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Murphy-Chutorian et al. (Patent Number 6056742), Oron et al. (Patent Number 6395016), Daniel et al. (Patent Number 6315774), and Oron et al. (Patent Number 6443974) all discloses system and method for surgical laser of the patient's heart.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (703) 305-0245. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (703) 308-2623. The fax phone number for this group is (703) 746-4561.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

A handwritten signature in black ink, appearing to read 'Binh Tran', with a long, sweeping flourish extending upwards and to the right.

BT
March 06, 2003

Binh Tran
Patent Examiner
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